

Zirkonzahn®

Human Zirconium Technology

*„Unto our last breath –
for the love of what we do!“*



Hans, born 1909

5 axes simultaneous milling technology:

Our new trend-setting orbital milling technology with 5 simultaneously operating axes guarantees the optimal working angle for each milling tool. It means milling is possible at any conceivable work piece position. Even undercuts and diverging abutments are processed safely and speedily.

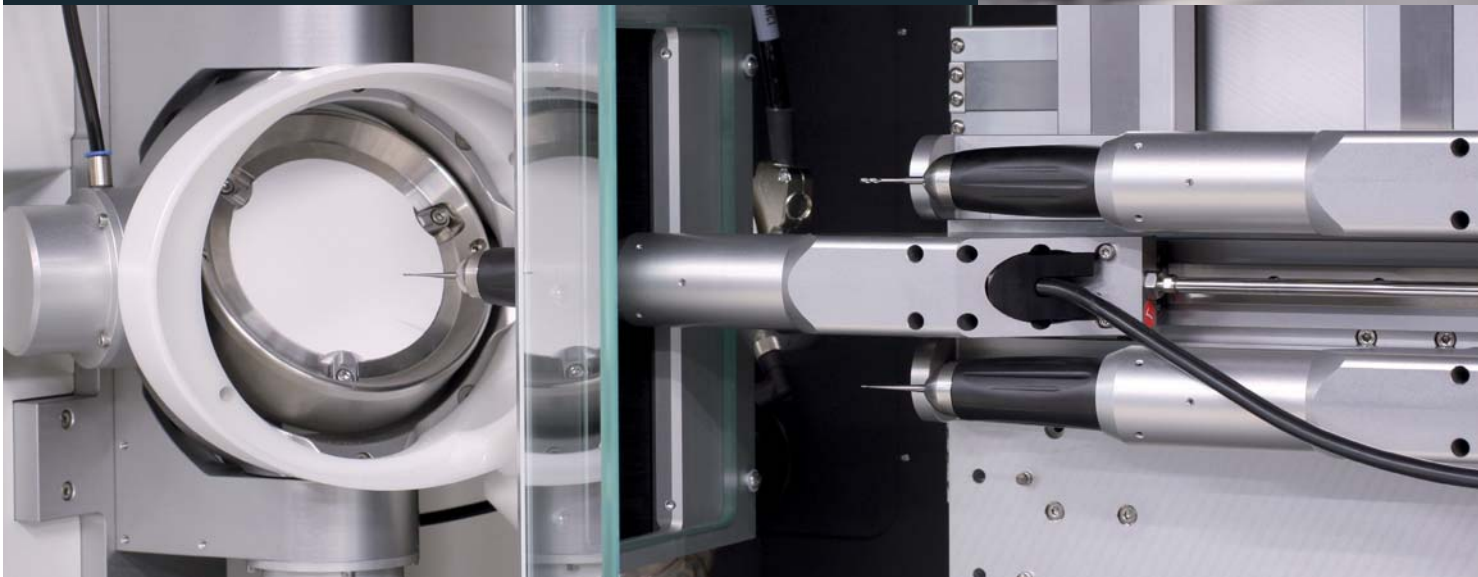
The difference

Our simultaneous 5-axes milling technology, compared to '4+1 axis' systems, allows for the work piece to be swivelled in all directions like a ball. Conventional 4+1 systems merely follow a predefined path of movement which cannot be altered.

Contrary to basic mathematics, 4+1 axes do NOT equal 5 axes in milling technology!

Milling unit „M5“:

- 5-axes simultaneous milling technology with new trend-setting orbital system
- Controlled axes with 5 micron resolution
- Multiple milling head system – accommodates up to 5 heads
- Solid milling head design features two guide rails per head
- Production capacity per day: approx. 100 units
- Milling operation control by webcam transmission in real time
- Milling materials: Pre-sintered zirconium dioxide (ICE Zirconia , Prettau Zirconia), pre-sintered alumina, resin, wax



Scanner „S600“:

- Fully automated strip-light scanner
- Scannable objects: Individual dies, arch segments, full arch models, bite records, opposing dentition, wax-ups, mushbite, veneers, abutments, occlusal registrations, bite rims, tooth set-up aids.
- Model rotation up to 360° and incline up to 100°: Any aspect of the object can be recorded.
- The extra-large survey parameters allow for whole-arch scans.
- Opposing dentition scan: From mushbite records, complete arches
- Articulator scan
- Scanning of mock-up framework (double scan)
- Precision of the scanner: $\leq 10 \mu\text{m}/\text{micron}$
- Easy application by a trained scan assistant
- Ultra-precision axis control.



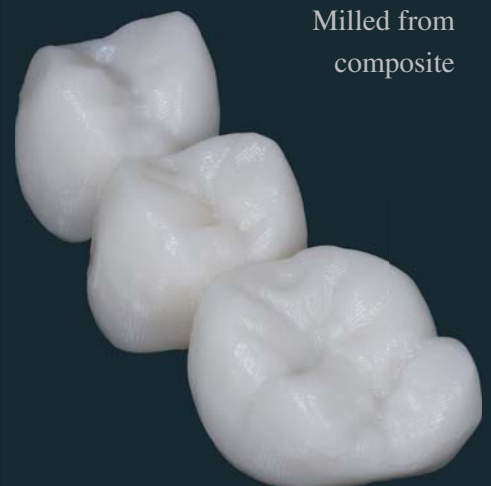
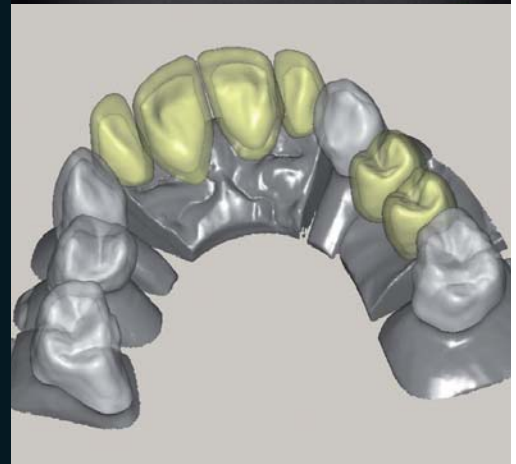
Software:

The software package includes archive software „Zirkonzahn.Archiv“, scan software „Zirkonzahn.Scan“, mock-up software „Zirkonzahn.Modellier“, milling software „Zirkonzahn.Fräsen“ and nesting software „Zirkonzahn.Nesting“.

Even the basic version offers a multitude of applications: Scan from single dies to full models for easy design of crown and bridge work. Some of the aids available feature automatic margin-recognition and a free-form tool ensuring unlimited creativity.

Bridge connectors, cement space and wall thickness can be modified in size or dimension. In addition, manual nesting (milling objects) and pin inter-connection can be carried out manually or via mouse click. Milling strategies can be adapted and calculated either automatically or manually.

Additional module extensions: Abutment, Inlays/Onlays, Full Zirconia Bridges (Prettau), Occlusal-screw retained constructions, Attachments, Telescopic crowns, Bars, Press-on crowns, Wax-ups, real and mirror image function.



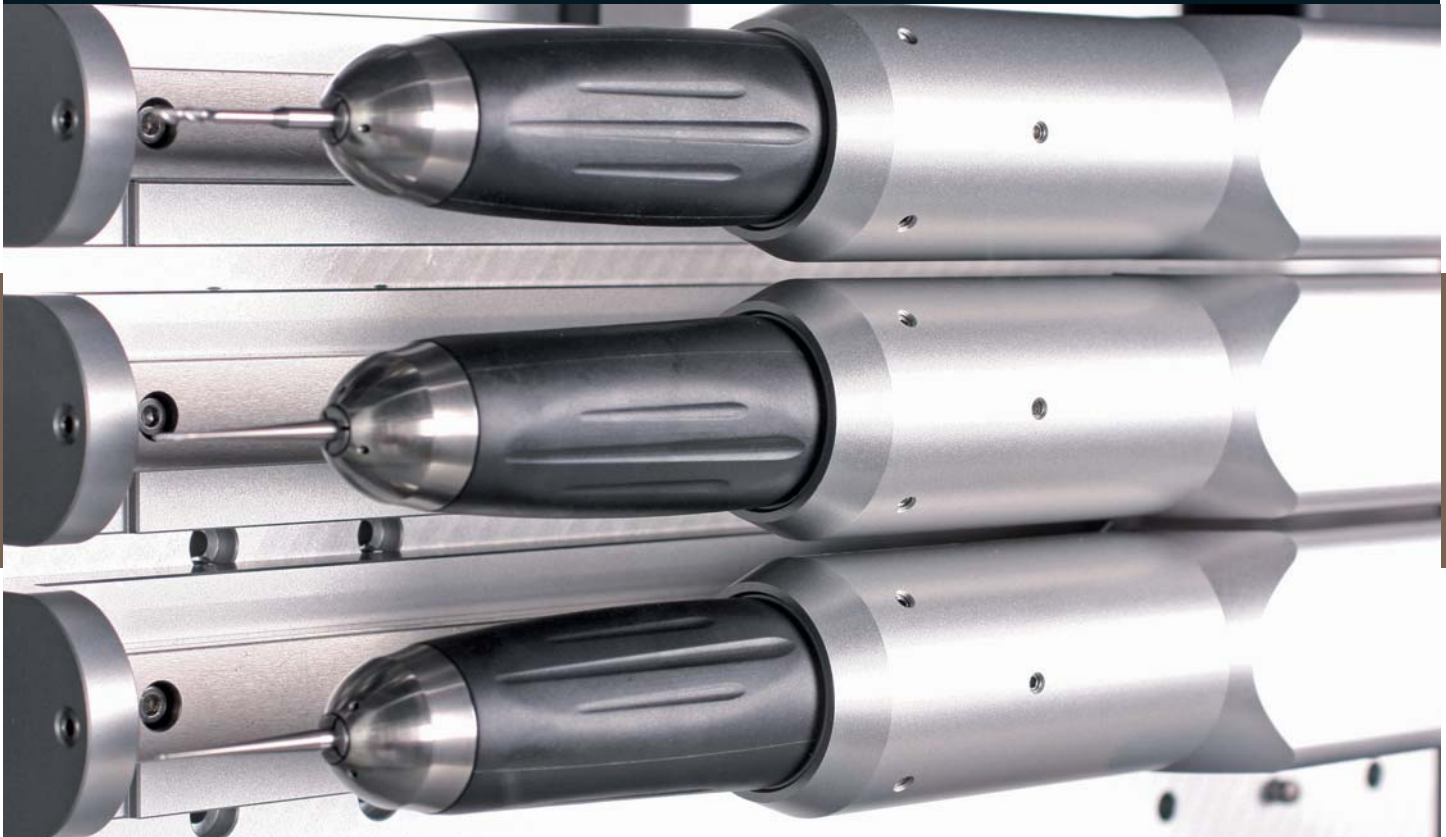
Milled from
composite

Zirkonzahn®

COMPLETE CAD/CAM SYSTEM S-TEC

System components:

- *Computer driven 5-axes milling unit M5 with 2 milling handpieces and milling bur calibration*
- *Fully automated optical scanner S600*
- *Scan-, modeling- and milling software*
- *Personal computer with screen*



ZIRKONZAHN World Wide - Tel +39 0474 066 680 - info@zirkonzahn.com - www.zirkonzahn.com



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